

ABSTRACT

A method of making a superconducting structure includes depositing a metal alkoxide on a surface of a metal and hydrolyzing the metal alkoxide on the surface to form a pinhole-free film. The metal is a superconductor. The metal alkoxide may be a compound of formula (I):



where M is zirconium or hafnium, and the purity of the compound is at least 97% as measured by NMR spectroscopy.